

# The taxonomy of the genus *Chlorophlaeoba* (Orthoptera, Acridoidea, Acrididae, Phlaeobinae) with description of a new species from China

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**Abstract:** A new species *Chlorophlaeobida taiwanensis* sp. n. from Taiwan, China is described in this paper. The new species is similar to *Ch. longusala* Zheng, 1982, but differs from the latter in: posterior margin of pronotum without a small concave in the middle; tegmina longer, extending over the end of hind femur distinctly; and subgenital plate of male longer, apex acute. A key to all known species of the genus is given. The type specimen of the new species is deposited in the National Museum of Natural Science (NMNH), Taichung, Taiwan, China.

**Key words:** Orthoptera; Acrididae; Phlaeobinae; *Chlorophlaeoba*; taxonomy; new species; China

The genus *Chlorophlaeoba* Ramme was erected in 1941, and the type species is *Ch. tonkinensis* Ramme, 1941. The main characters differing from the allied genus *Phlaeoba* Stål, 1860 are head longer, length equal or longer than pronotum and pronotum with additional carinae between median and lateral carinae. Up to the present, the genus contains 3 species distributed in Viet Nam (Tonkin) and China only.

During a visit to Taiwan, China in October 2001–April 2002, a new species of the genus *Chlorophlaeoba* Ramme was found by the first author, which is described here. The type specimen is deposited in the National Museum of Natural Science (NMNH), Taichung, Taiwan, China. A key to all known species of the genus is supplied below.

## Key to the known species of genus *Chlorophlaeoba* Ramme, 1941

- 1(6) Head of male shorter, almost equal to pronotum. Hind margin of pronotum curved or in circular angle.
  - 2(5) Upper median carinula of hind femur serrated. Tegmina longer, reaching to the end of hind femur or extending beyond the end.
    - 3(4) Tegmina extending beyond the end of hind femur. Head shorter than pronotum slightly. Hind margin of pronotum in circular angle, without a small concave in the middle. Subgenital plate of male longer, apex acute. China (Taiwan, type locality) ..... *Ch. taiwanensis* sp. nov.
    - 4(3) Tegmina reaching to the end of hind femur. Head longer than pronotum slightly. Hind margin of pronotum curved, with a small concave in the middle. Subgenital plate of male shorter, apex rounded. China (Yunnan, type locality) ..... *Ch. longusala* Zheng, 1982
  - 5(2) Upper median carinula of hind femur smooth. Tegmina shorter, not reaching to the end of hind femur. Viet Nam (Tonkin, type locality); China (Guangxi) ..... *Ch. tonkinensis* Ramme, 1941
- 6(1) Head of male longer, its length 1.3 times length of pronotum. Hind margin of pronotum obtusely angulated in the middle. China (Hainan, type locality) ..... *Ch. longiceps* Liang et Zheng, 1988

*Chlorophlaeoba taiwanensis* sp. nov. Figs. 1–3

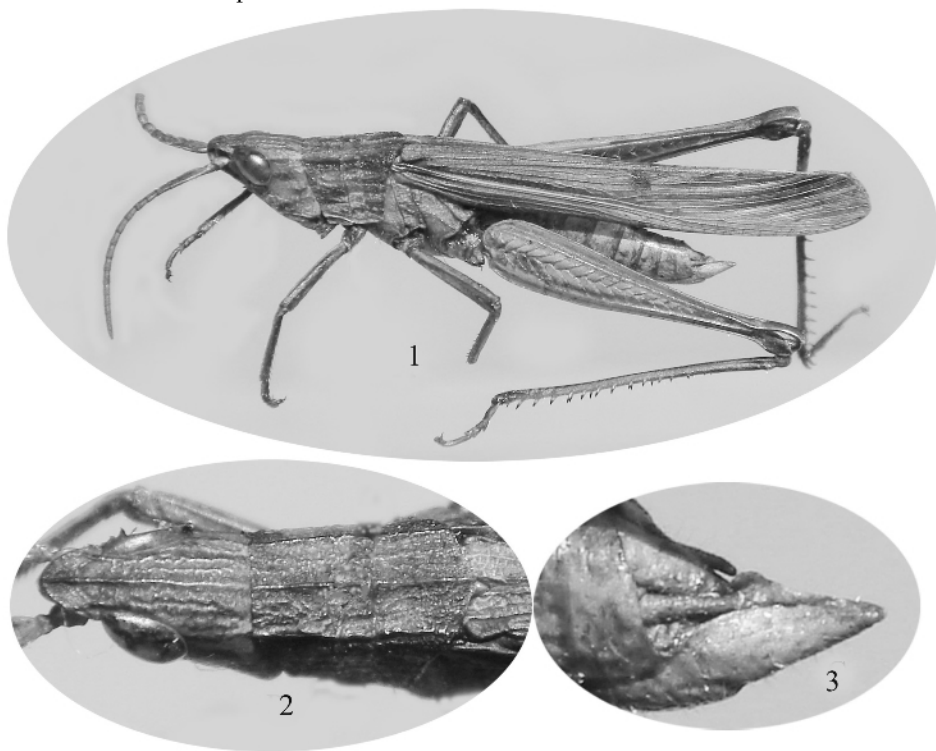
**Type materials.** Holotype male, China: Taiwan, Hsinchu, Kuanhsi, 24° 48' N, 121° 10' E, 23 May, 1992, collected by C.-Y. Li (NMNH).

**Descriptions. Male** (Figs. 1, 2, 3): Body median in size. Head large, slightly shorter than pronotum. Face oblique distinctly in profile, with sulcus throughout, contracted in the median part, expanded downward distinctly. Antennae ensiform, widened distinctly in the basal part, gently narrowing toward apices, 22 segments, surpassing over the posterior margin of

pronotum. Eyes globose, longitudinal diameter 1.5 times as long as horizontal diameter and 1.4 times as long as subocular furrow. Pronotum cylindrical, median keel normal, low, slightly cut by hind transverse sulcus, lateral carinae nearly parallel, between median keel and lateral carinae with two additional carinae, the length of metazona 1.1 times as long as prozona, hind margin without a small concave in the middle. Length of interspace of mesosternum 1.3 times width, lateral lobes of metasternum separated slightly. Tegmina longer, extending over the end of hind femur distinctly. Upper keel of hind femur serrated slightly, well proportioned, length 5.0 times maximal width, the end of lower knee lobes rounded. Hind tibia with 12 spines on inner side

and 12 or 13 spines on outer side, external apical spine absent. Second joint of hind tarsus shorter than the first one. Tympanum organ distinct. Epiproct tongue-shaped, basal half part with longitudinal groove in the middle. Cercus slender, extending over the tip of epiproct, furculae absent. Subgenital plate longer, conical, apex acute.

Body brown. Head and pronotum brown, with indistinct longitudinal pale stripes. Antenna brown. Pronotum with black band on the both sides of lateral carinae. Tegmina brown, with a narrow white stripe near the fore margin, not reaching to the middle of tegmina. Hind femur and tibia brown.



Figs. 1–3 *Chlorophaeoba taiwanensis* sp. n.

1: Male, lateral view; 2: Male, head and pronotum; 3: Male, subgenital plate.

**Measurements.** Length of body: male 22.4 mm; length of tegmina: male 19.7 mm; length of hind femur: male 13.5 mm.

**Female.** Unknown.

**Diagnosis.** The new species is similar to *Ch. longusala* Zheng, 1982, but differs from the latter in: posterior margin of pronotum without a small concave in the middle; tegmina longer, extending over the end of hind femur distinctly; and subgenital plate of male longer, apex acute.

**Etymology.** The specific epithet of the new species is derived from the name of Taiwan Island, the type locality.

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# 黄佛蝗属分类及一新种记述

## ( 直翅目 : 剑角蝗科 : 佛蝗亚科 )

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摘要 : 本文记述了产于中国台湾的黄佛蝗属一新种台湾黄佛蝗 *Chlorophaleobida taiwanensis* sp. n.。该新种同长翅黄佛蝗 *Ch. longusala* Zheng, 1982 近似, 其区别特征为 : 前胸背板后缘中央无小缺口 ; 前翅较长, 明显超出后足股节端部 ; 雄性下生殖板较长, 顶端尖。文中附该属已知种检索表。模式标本保存于中国台湾台中, 国立自然科学博物馆。

关键词 : 直翅目 ; 剑角蝗科 ; 佛蝗亚科 ; 黄佛蝗属 ; 分类 ; 新种 ; 中国

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